## Onshore Gippsland Basin Exploration – Background And Recent Developments

By Jack Mulready, Lakes Oil NL Presented at the PESA Vic/Tas branch luncheon meeting, September 18th, 2002



O il exploration in the Gippsland Basin may be said to have commenced with the drilling of Lake Bunga-1, the discovery well of the Lakes Entrance oil field in 1924. Lakes Oil produced about 8,000 barrels of oil from the field before production was abandoned in 1952. The Lower Cretaceous Strzelecki Group became the focus of attention during the 1960s, after North Seaspray-1, drilled by Woodside/Lakes Oil, encountered gas in the uppermost portion of the Strzelecki Group. The commercial hydrocarbon discoveries in the offshore Gippsland Basin in the mid-1960s marked the end of sustained exploration in the onshore, particular for gas for which there was no market in the foreseeable future.

In 1995, Lakes Oil was granted PEP 135 and in 1997 drilled two appraisal wells into the Lakes Entrance oil field, designed to gauge the potential for steam injection within the field. In 1999, the company unsuccessfully drilled two further wells that targeted pinchout plays in the Lower Latrobe Group. Since 2000, Lakes Oil has refocussed exploration efforts on the Strzelecki Group and has drilled three stratigraphic holes and three successful exploration wells targeting Cretaceous reservoirs. Core analysis data from Boundary Creek-1 provided surprisingly good results for Strzelecki Group sandstones, whilst stratigraphic drilling has helped to pin down the location of the western pinch-out edge of the Late Cretaceous Golden Beach Formation in the Longford vicinity.

In cooperation with Halliburton Services, Lakes Oil is now reviewing the results of their recent drilling. Apart from palynological analysis, petrological studies, special core analyses and log interpretation for the purpose of evaluating the potential for fracture simulation of the tight gas sands of the Strzelecki Group, the company also tries to improve the deliverability by means of underbalanced drilling. It is planned that drilling will resume towards the end of 2002. The onshore potential of the Golden Beach Formation is yet to be assessed and will presumably require acquisition of new seismic data.

## **Biography**

Jack Mulready holds a BSc, BA and DipEd from the University of Melbourne, and a Fellowship Diploma of Management from RMIT. After graduating in 1963, he has worked for Core Laboratories, Cundill Myers Consultants, Alliance Oil and Delhi Petroleum. In 1980, he joined Moonie Oil as their Exploration Manager. Following the takeover of Moonie by AGL he found himself catapulted into the self-employed sector and set about establishing his own consultancy in 1986. Jack now has a variety of Australian and international clients and is also heavily involved in the management of Lakes Oil's exploration operations.